

## Creve Coeur Lake

Region - Ozark Border

Creve Coeur is a 320 acre lake that is located in the Missouri River floodplain, where the soil is erodible and nutrient rich. Even though the lake is part of a 1,141 acre park, the area surrounding the lake is urban. Creve Coeur Lake differs from all of the other lakes in the program in that it is not a reservoir but an oxbow lake. Having once been part of the Missouri River, this lake is now about two miles from the present channel, separated over time by the natural meandering of the river.



Figure 21. Location of Creve Coeur Lake.

### 1999 Results

Figure 22 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids, and Secchi transparency varied in Creve Coeur Lake during the 1999 sampling season. A brief description of these results are:

- ▶ All parameters displayed considerable variability during the sample season.
- ▶ Phosphorus and inorganic suspended solids concentrations mimicked each other, suggesting some correlation between these two parameters.
- ▶ Average values for all parameters except Secchi transparency were high, relative to most lakes in the program.
- ▶ Average values measured for phosphorus and chlorophyll were in the hypereutrophic range and average values for nitrogen were in the eutrophic range.

Table 10. Descriptive statistics for Creve Coeur Lake - 1999.

Parameters	Average	Median	Minimum	Maximum
Chlorophyll ( $\mu\text{g/L}$ )	68.9	62.7	20.3	109.7
Nitrogen ( $\mu\text{g/L}$ )	987	1040	620	1330
Phosphorus ( $\mu\text{g/L}$ )	165	154	84	265
ISS (mg/L)	25.7	25.0	12.0	53.4
Secchi (inches)	12	13	7	18

ISS = Inorganic Suspended Solids

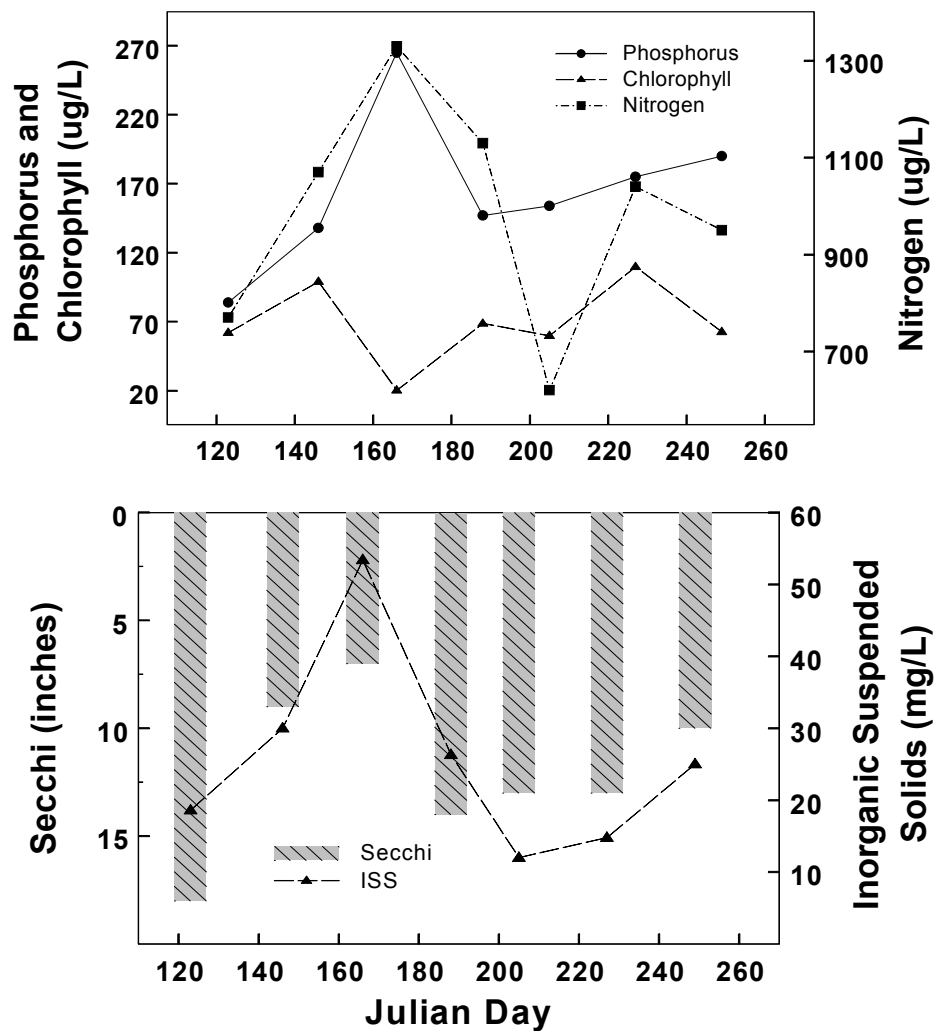


Figure 22. Seasonal fluctuations of parameters in Creve Coeur Lake - 1999.